

IN THE CLAIMS

Please cancel without prejudice claims 1-4, 12, 20, and 25.

Please amend claims 5-6, 9, 13-14, 17, and 21-22 as indicated below.

1. - 4. (Canceled)

5. (Currently Amended) The method of claim 4~~8~~, wherein ~~each of the first packet selection process and the second packet selection process comprises two or more subprocesses executed to select the first packet and the second packet respectively, where~~ the first and second packets are selected based on an arrival time of the first and second packets at a corresponding egress queue and a departure time of a previous packet at the corresponding egress queue from a data flow associated with the first and second packets respectively.

6. (Currently Amended) The method of claim 5~~8~~, wherein each of the two or more subprocesses in the first packet selection process and in the second packet selection process is executed in one time slot.

7. (Original) The method of claim 6, wherein each of the two or more subprocesses in the first packet selection process and in the second packet selection process is executed at a different level of the scheduling hierarchy.

8. (Previously Presented) A method for selecting packets comprising:  
initiating a first packet selection process at a first time slot;  
initiating a second packet selection process at a second time slot immediately following

the first time slot such that execution of the second packet selection process overlaps execution of the first packet selection process at different levels of a scheduling hierarchy;

selecting a first packet at a third time slot in response to the first packet selection process;

and

selecting a second packet at a fourth time slot in response to the second packet selection process, the fourth time slot immediately following the third time slot,

wherein each of the first packet selection process and the second packet selection process comprises two or more subprocesses executed to select the first packet and the second packet respectively, and

wherein at least one of the subprocesses in the first packet selection process is different from the subprocesses in the second packet selection process.

9. (Currently Amended) The method of claim 58, wherein when a subprocess is selected by the first packet selection process, it is locked and cannot be selected by the second packet selection process.

10. (Original) The method of claim 9, wherein the subprocess is selected from one or more subprocesses at a same level of the scheduling hierarchy by sorting the one or more subprocesses at that level based on a selection criteria.

11. (Previously Presented) A method for selecting packets comprising:

initiating a first packet selection process at a first time slot;

initiating a second packet selection process at a second time slot immediately following the first time slot such that execution of the second packet selection process overlaps execution

of the first packet selection process at different levels of a scheduling hierarchy;

selecting a first packet at a third time slot in response to the first packet selection process;

and

selecting a second packet at a fourth time slot in response to the second packet selection process, the fourth time slot immediately following the third time slot,

wherein each of the first packet selection process and the second packet selection process comprises two or more subprocesses executed to select the first packet and the second packet respectively,

wherein when a subprocess is selected by the first packet selection process, it is locked and cannot be selected by the second packet selection process,

wherein the subprocess is selected from one or more subprocesses at a same level of the scheduling hierarchy by sorting the one or more subprocesses at that level based on a selection criteria, and

wherein the selection criteria is one selected in a group comprising an arrival time and a contracted rate.

12. (Canceled)

13. (Currently Amended) The computer readable medium of claim ~~12~~11, wherein each of the first packet selection process and the second packet selection process comprises two or more subprocesses executed to select the first packet and the second packet respectively, where the first and second packets are selected based on an arrival time of the first and second packets at a corresponding egress queue and a departure time of a previous packet at the corresponding egress queue from a data flow associated with the first and second packets respectively.

14. (Currently Amended) The computer readable medium of claim ~~13~~16, wherein each of the two or more subprocesses in the first packet selection process and in the second packet selection process is executed in one time slot.
15. (Original) The computer readable medium of claim 14, wherein each of the two or more subprocesses in the first packet selection process and in the second packet selection process is executed at a different level of the scheduling hierarchy.
16. (Previously Presented) A computer readable medium having stored thereon sequences of instructions which are executable by a system, and which, when executed by the system, cause the system to:
- initiate a first packet selection process at a first time slot;
  - initiate a second packet selection process at a second time slot immediately following the first time slot such that execution of the second packet selection process overlaps execution of the first packet selection process at different levels of a scheduling hierarchy;
  - select a first packet at a third time slot in response to the first packet selection process;
- and
- select a second packet at a fourth time slot in response to the second packet selection process, the fourth time slot immediately following the third time slot,
- wherein each of the first packet selection process and the second packet selection process comprises two or more subprocesses executed to select the first packet and the second packet respectively, and

wherein at least one of the subprocesses in the first packet selection process is different from the subprocesses in the second packet selection process.

17. (Currently Amended) The computer readable medium of claim ~~13~~16, wherein when a subprocess is selected by the first packet selection process, it is locked and cannot be selected by the second packet selection process.

18. (Original) The computer readable medium of claim 17, wherein the subprocess is selected from one or more subprocesses at a same level of the scheduling hierarchy by sorting the one or more subprocesses at that level based on a selection criteria.

19. (Previously Presented) A computer readable medium having stored thereon sequences of instructions which are executable by a system, and which, when executed by the system, cause the system to:

initiate a first packet selection process at a first time slot;

initiate a second packet selection process at a second time slot immediately following the first time slot such that execution of the second packet selection process overlaps execution of the first packet selection process at different levels of a scheduling hierarchy;

select a first packet at a third time slot in response to the first packet selection process;

and

select a second packet at a fourth time slot in response to the second packet selection process, the fourth time slot immediately following the third time slot,

wherein when a subprocess is selected by the first packet selection process, it is locked and cannot be selected by the second packet selection process,

wherein the subprocess is selected from one or more subprocesses at a same level of the scheduling hierarchy by sorting the one or more subprocesses at that level based on a selection criteria, and

wherein the selection criteria is one selected in a group comprising an arrival time and a contracted rate.

20. (Canceled)

21. (Currently Amended) The system of claim ~~20~~24, wherein ~~each of the first packet selection process and the second packet selection process comprises two or more subprocesses executed to select the first packet and the second packet respectively, where the first and second packets are selected based on an arrival time of the first and second packets at a corresponding egress queue and a departure time of a previous packet at the corresponding egress queue from a data flow associated with the first and second packets respectively.~~

22. (~~Original~~Currently Amended) The system of claim ~~21~~24, wherein each of the two or more subprocesses in the first packet selection process and in the second packet selection process is executed in one time slot.

23. (Original) The system of claim 22, wherein each of the two or more subprocesses in the first packet selection process and in the second packet selection process is executed at a different level of the scheduling hierarchy.

24. (Previously Presented) A system, comprising:

a switch fabric; and

an egress coupled with the switch fabric to

initiate a first packet selection process at a first time slot,

initiate a second packet selection process at a second time slot immediately

following the first time slot such that execution of the second packet selection process overlaps execution of the first packet selection process at different levels of a scheduling hierarchy,

select a first packet at a third time slot in response to the first packet selection process, and

select a second packet at a fourth time slot in response to the second packet selection process, the fourth time slot immediately following the third time slot,

wherein each of the first packet selection process and the second packet selection process comprises two or more subprocesses executed to select the first packet and the second packet respectively, and

wherein at least one of the subprocesses in the first packet selection process is different from the subprocesses in the second packet selection process.

25. (Currently Amended) The system of claim ~~24~~24, wherein when a subprocess is selected by the first packet selection process, it is locked and cannot be selected by the second packet selection process.

26. (Original) The system of claim 25, wherein the subprocess is selected from one or more subprocesses at a same level of the scheduling hierarchy by sorting the one or more subprocesses at that level based on a selection criteria.

27. (Previously Presented) A system, comprising:

a switch fabric; and

an egress coupled with the switch fabric to

initiate a first packet selection process at a first time slot,

initiate a second packet selection process at a second time slot immediately following the first time slot such that execution of the second packet selection process overlaps execution of the first packet selection process at different levels of a scheduling hierarchy,

select a first packet at a third time slot in response to the first packet selection process, and

select a second packet at a fourth time slot in response to the second packet selection process, the fourth time slot immediately following the third time slot,

wherein each of the first packet selection process and the second packet selection process comprises two or more subprocesses executed to select the first packet and the second packet respectively,

wherein when a subprocess is selected by the first packet selection process, it is locked and cannot be selected by the second packet selection process,

wherein the subprocess is selected from one or more subprocesses at a same level of the scheduling hierarchy by sorting the one or more subprocesses at that level based on a selection criteria, and

wherein the selection criteria is one selected in a group comprising an arrival time and a contracted rate.